



شركة حديث
التقنية العليا
HITECH
STEEL INDUSTRIES

TDS: ROOF EDGE SAFETY GUARDRAIL SYSTEM

HSI-TDS-RGS-001 | Rev. 01



1. COMPONENT PART REFERENCE LIST

All fittings are malleable cast iron galvanized to BS EN ISO 1461 unless otherwise stated. All tubes are 42.4 mm O/D galvanized steel to EN 10255 unless otherwise stated.

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Part Reference	Description	Tube Diameter	Net Weight	Material
11308-7510	Base Foot (Standard / Toe board adapter option)	42.4 mm (cantilever)	1.9 kg	Malleable cast iron / galvanized
CBT1	Cantilever Tube — Intermediate (1,075 mm)	42.4 mm O/D	3.26 kg	Galvanized steel EN 10255
CBT2	Cantilever Tube — End/First-Last (1,575 mm)	42.4 mm O/D	4.48 kg	Galvanized steel EN 10255
CBT3	Small Cantilever Tube / Counterweight Link (260 mm)	42.4 mm O/D	0.78 kg	Galvanized steel EN 10255
8610	Main Rail Tube — 6.4 m (EN 14122-3: 3.2 mm wall)	42.4 mm O/D	22.9 kg	Galvanized steel EN 10255
8610HL	Main Rail Tube — 3.2 m	42.4 mm O/D	11.45 kg	Galvanized steel EN 10255
8610213	Main Rail Tube — 2.133 m	42.4 mm O/D	7.60 kg	Galvanized steel EN 10255
8310	Main Rail Tube — 6.4 m (EN 13374: 2.9 mm wall)	42.4 mm O/D	~22.9 kg	Galvanized steel EN 10255
440-7	Recycled PVC Counterweight	N/A	13.3 kg	100% Recycled PVC
15-8	90° Elbow	42.4 mm	0.76 kg	Malleable cast iron / galvanized
14-8	Straight Coupling	42.4 mm	0.60 kg	Malleable cast iron / galvanized
19-8	Adjustable Side Outlet Tee Elbow (90°–180°)	42.4 mm	1.00 kg	Malleable cast iron / galvanized
25-8	Three Socket Tee Connector	42.4 mm	1.08 kg	Malleable cast iron / galvanized
26-7	Two Socket Cross	42.4 mm / 42.4 mm	0.63 kg	Malleable cast iron / galvanized
135-8	Saddle Clamp	42.4 mm	0.77 kg	Malleable cast iron / galvanized
74-7	Collar (Cantilever–Counterweight Link)	42.4 mm (ID)	0.24 kg	Malleable cast iron / galvanized

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SGEU500GV	European Safety Gate — Galvanized (500 mm)	33.7 mm O/D	11.0 kg	Steel to EN 10255 / galvanized
SGEU500PC	European Safety Gate — Powder Coated (500 mm)	33.7 mm O/D	11.0 kg	Steel EN 10255 / powder coated to EN 13438
SL109C	Wall/Ladder Clamp (max 70 mm stringer)	N/A	1.10 kg	Galvanized steel BS EN ISO 1461
SL110	Wall Fixing (used in pairs with SL109C)	N/A	0.064 kg	Stainless steel
SL105	Plastic Cap (top of support leg)	Fits 42.4 mm tube	0.009 kg	PVC
SL111	System Identification / Approval Plaque	N/A	0.085 kg	Plastic (printed)
K1351-4080	Replacement Rubber Pad for Base Foot	N/A	—	Fluted rubber

2. INSPECTION & MAINTENANCE SCHEDULE

Periodic inspections by a competent person are mandatory under applicable safety regulations. In the KSA market, inspections must satisfy applicable SASO/GCC occupational safety requirements and the manufacturer's minimum recommendations below. Inspection frequency depends on environment, roof traffic, and climate exposure - KSA coastal and high-humidity zones may require more frequent inspection cycles. All inspection records must be retained on file.



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Inspection Item	Action Required	Frequency / Reference
General Visual Inspection	Walk and visually inspect complete system. Check for damage, missing components, tampering or unauthorized modifications.	Minimum every 12 months (BS EN 365, BS 13700, Work at Height Regs)
Configuration Verification	Confirm installation matches original as-built drawing/plan in all details.	Annually and after any works on roof
Base Feet	Check all base feet are in full contact with the roof membrane. Inspect rubber pads for deterioration.	Annual inspection
Counterweights	Verify all counterweights are in their specified positions per the original drawing – critical for wind load compliance.	Annual inspection
Grub Screws	Check all grub screws are present, properly greased and tightened to the correct torque.	Annual inspection
Height and Level	Check general height (1,100 mm) and level of system, including support leg centers. Flag if tampered.	Annual inspection
Galvanizing / Corrosion	Wire brush any corroded components; apply galvanized spray/paint. If significantly rusted, photograph and include in inspection report for engineering review.	Annual inspection (critical in KSA coastal/humid environments)
Toe board Brackets (if fitted)	Confirm toe board brackets are in place, greased and sufficiently torqued.	Annual inspection
Wall / Cat Ladder Clamps (if applicable)	Check fixings to walls and structures. Ensure clamps are in place, greased and torqued.	Annual inspection
System Identification Plaque (SL111)	Check plaque is in position. Update next-inspection date. Obtain additional plaques if refurbishment has occurred.	Annual inspection
Re-testing / Recertification	Any re-testing must be carried out by a Hitech-authorized service agent only. Do NOT attempt re-testing without authorization.	As required following significant alteration or damage

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3. SAFETY WARNINGS & PROHIBITIONS

	CRITICAL SAFETY WARNINGS — READ BEFORE USE
1.	Under no circumstances shall any person anchor or connect a lanyard, lifeline or fall-arrest device to this guardrail system at any time.
2.	Do NOT attach plastic sheeting, advertising boards, timber infill, polyethylene sheets or any material that would increase wind loading on the guardrail.
3.	Do NOT remove, tamper with, adjust or alter the guardrail installation in any way without first consulting Hitech Steel Industries.
4.	If the guardrail is found to have been altered or tampered with, contact Hitech Steel Industries immediately and isolate the area.
5.	Re-testing and recertification may only be carried out by an authorized Hitech Steel Industries service agent.
6.	Counterweights must not be repositioned or removed without engineering authorization — doing so invalidates the wind-load design.
7.	Do NOT use this system on roof slopes exceeding the maximum pitch specified in the relevant compliance table for your roof membrane type.

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